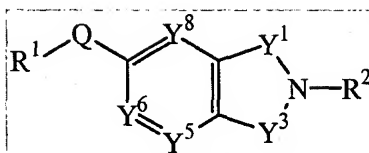


CLAIMS

What is claimed is:

5

1. A compound of Formula I



I

or a pharmaceutically acceptable salt thereof,

wherein:

10

R¹ is independently selected from:

C₅ or C₆ cycloalkyl-(C₁-C₈ alkylenyl);

Substituted C₅ or C₆ cycloalkyl-(C₁-C₈ alkylenyl);

C₈-C₁₀ bicycloalkyl-(C₁-C₈ alkylenyl);

Substituted C₈-C₁₀ bicycloalkyl-(C₁-C₈ alkylenyl);

15

5- or 6-membered heterocycloalkyl-(C₁-C₈ alkylenyl);

Substituted 5- or 6-membered heterocycloalkyl-(C₁-C₈ alkylenyl);

8- to 10-membered heterobicycloalkyl-(C₁-C₈ alkylenyl);

Substituted 8- to 10-membered heterobicycloalkyl-(C₁-C₈ alkylenyl);

Phenyl-(C₁-C₈ alkylenyl);

20

Substituted phenyl-(C₁-C₈ alkylenyl);

Naphthyl-(C₁-C₈ alkylenyl);

Substituted naphthyl-(C₁-C₈ alkylenyl);

5- or 6-membered heteroaryl-(C₁-C₈ alkylenyl);

Substituted 5- or 6-membered heteroaryl-(C₁-C₈ alkylenyl);

25

8- to 10-membered heterobiaryl-(C₁-C₈ alkylenyl);

Substituted 8- to 10-membered heterobiaryl-(C₁-C₈ alkylenyl);

Phenyl;

Substituted phenyl;

Naphthyl;

30

Substituted naphthyl;

5- or 6-membered heteroaryl;

Substituted 5- or 6-membered heteroaryl;
8- to 10-membered heterobiaryl; and
Substituted 8- to 10-membered heterobiaryl;

R² is independently selected from:

- 5 H;
 C₁-C₆ alkyl;
 Phenyl-(C₁-C₈ alkylenyl);
 Substituted phenyl-(C₁-C₈ alkylenyl);
 Naphthyl-(C₁-C₈ alkylenyl);
10 Substituted naphthyl-(C₁-C₈ alkylenyl);
 5- or 6-membered heteroaryl-(C₁-C₈ alkylenyl);
 Substituted 5- or 6-membered heteroaryl-(C₁-C₈ alkylenyl);
 8- to 10-membered heterobiaryl-(C₁-C₈ alkylenyl);
 Substituted 8- to 10-membered heterobiaryl-(C₁-C₈ alkylenyl);
15 Phenyl-O-(C₁-C₈ alkylenyl);
 Substituted phenyl-O-(C₁-C₈ alkylenyl);
 Phenyl-S-(C₁-C₈ alkylenyl);
 Substituted phenyl-S-(C₁-C₈ alkylenyl);
 Phenyl-S(O)-(C₁-C₈ alkylenyl);
20 Substituted phenyl-S(O)-(C₁-C₈ alkylenyl);
 Phenyl-S(O)₂-(C₁-C₈ alkylenyl); and
 Substituted phenyl-S(O)₂-(C₁-C₈ alkylenyl);

Each substituted R¹ and R² group contains from 1 to 4 substituents, each independently on a carbon or nitrogen atom, independently selected from:

- 25 C₁-C₆ alkyl;
 CN;
 CF₃;
 HO;
 (C₁-C₆ alkyl)-O;
30 (C₁-C₆ alkyl)-S(O)₂;
 H₂N;
 (C₁-C₆ alkyl)-N(H);
 (C₁-C₆ alkyl)₂-N;

- (C₁-C₆ alkyl)-C(O)O-(C₁-C₈ alkylenyl)_m;
 (C₁-C₆ alkyl)-C(O)O-(1- to 8-membered heteroalkylenyl)_m;
 (C₁-C₆ alkyl)-C(O)N(H)-(C₁-C₈ alkylenyl)_m;
 (C₁-C₆ alkyl)-C(O)N(H)-(1- to 8-membered heteroalkylenyl)_m;
 5 H₂NS(O)₂-(C₁-C₈ alkylenyl);
 (C₁-C₆ alkyl)-N(H)S(O)₂-(C₁-C₈ alkylenyl)_m;
 (C₁-C₆ alkyl)₂-NS(O)₂-(C₁-C₈ alkylenyl)_m;
 3- to 6-membered heterocycloalkyl-(G)_m;
 Substituted 3- to 6-membered heterocycloalkyl-(G)_m;
 10 5- or 6-membered heteroaryl-(G)_m;
 Substituted 5- or 6-membered heteroaryl-(G)_m;
 (C₁-C₆ alkyl)-S(O)₂-N(H)-C(O)-(C₁-C₈ alkylenyl)_m; and
 (C₁-C₆ alkyl)-C(O)-N(H)-S(O)₂-(C₁-C₈ alkylenyl)_m;

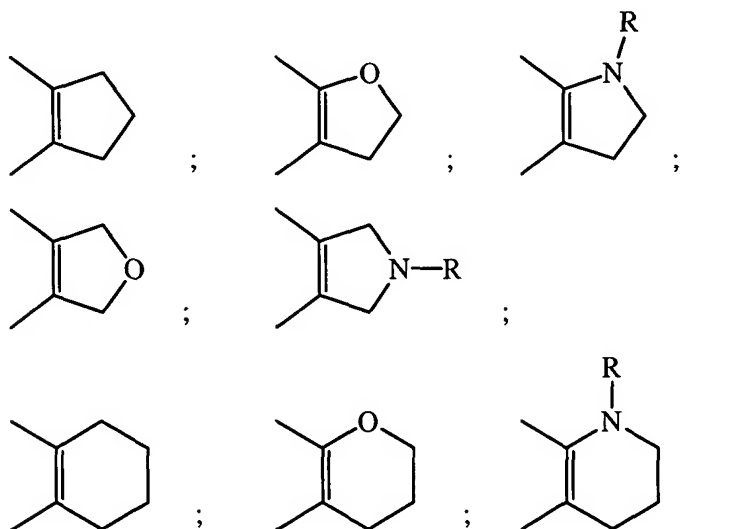
wherein each substituent on a carbon atom may further be independently selected
 15 from:

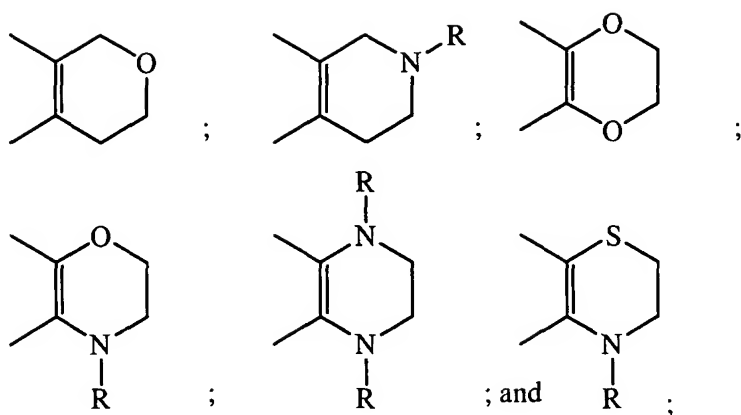
Halo; and

HO₂C;

wherein 2 substituents may be taken together with a carbon atom to which they
 are both bonded to form the group C=O;

20 wherein two adjacent, substantially sp² carbon atoms may be taken together with a
 diradical substituent to form a cyclic diradical selected from:





R is H or C₁-C₆ alkyl;

G is CH₂; O, S, S(O); or S(O)₂;

5 m is an integer of 0 or 1;

Y¹ and Y³ are independently is C(O) or CH₂;

Y⁵, Y⁶, and Y⁸ are each independently C(R⁵) or N;

R⁴ and each R⁵ are each independently selected from the groups:

H;

10 CH₃;

CH₃O;

CH=CH₂;

HO;

CF₃;

15 CN;

HC(O);

CH₃C(O);

HC(NOH);

H₂N;

20 (CH₃)-N(H);

(CH₃)₂-N;

H₂NC(O);

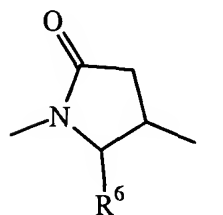
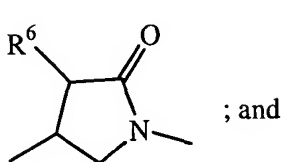
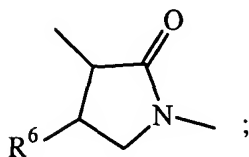
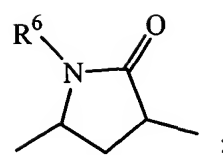
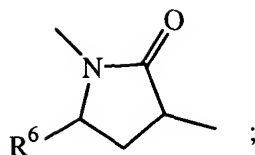
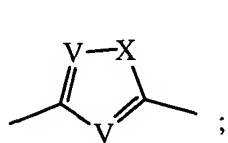
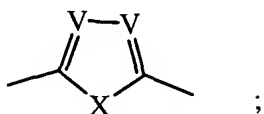
(CH₃)-N(H)C(O); and

(CH₃)₂-NC(O);

25 Q is selected from:

OC(O);

- $\text{CH(R}^6\text{)C(O);}$
 $\text{OC(NR}^6\text{);}$
 $\text{CH(R}^6\text{)C(NR}^6\text{);}$
 $\text{N(R}^6\text{)C(O);}$
5 $\text{N(R}^6\text{)C(S);}$
 $\text{N(R}^6\text{)C(NR}^6\text{);}$
 $\text{N(R}^6\text{)CH}_2\text{;}$
 SC(O);
 $\text{CH(R}^6\text{)C(S);}$
10 $\text{SC(NR}^6\text{);}$
 trans-(H)C=C(H);
 cis-(H)C=C(H);
 $\text{C}\equiv\text{C;}$
 $\text{CH}_2\text{C}\equiv\text{C;}$
15 $\text{C}\equiv\text{CCH}_2\text{;}$
 $\text{CF}_2\text{C}\equiv\text{C; and}$
 $\text{C}\equiv\text{CCF}_2\text{;}$



- 20 Each R^6 independently is H, $\text{C}_1\text{-C}_6$ alkyl, $\text{C}_3\text{-C}_6$ cycloalkyl; 3- to 6-membered
heterocycloalkyl; phenyl; benzyl; or 5- or 6-membered heteroaryl;
X is O, S, N(H), or N($\text{C}_1\text{-C}_6$ alkyl);
Each V is independently C(H) or N;

wherein each C₈-C₁₀ bicycloalkyl is a bicyclic carbocyclic ring that contains 8-, 9-, or 10-member carbon atoms which are 5,5-fused, 6,5-fused, or 6,6-fused bicyclic rings, respectively, and wherein the ring is saturated or optionally contains one carbon-carbon double bond;

5 wherein each 8- to 10-membered heterobicycloalkyl is a bicyclic ring that contains carbon atoms and from 1 to 4 heteroatoms independently selected from 2 O, 1 S, 1 S(O), 1 S(O)₂, 1 N, 4 N(H), and 4 N(C₁-C₆ alkyl), and wherein when two O atoms or one O atom and one S atom are present, the two O atoms or one O atom and one S atom are not bonded to each other, and wherein the ring is
10 saturated or optionally contains one carbon-carbon or carbon-nitrogen double bond, and wherein the heterobicycloalkyl is a 5,5-fused, 6,5-fused, or 6,6-fused bicyclic ring, respectively,

wherein each heterocycloalkyl is a ring that contains carbon atoms and from 1 to 4
15 heteroatoms independently selected from 2 O, 1 S, 1 S(O), 1 S(O)₂, 1 N, 4 N(H), and 4 N(C₁-C₆ alkyl), and wherein when two O atoms or one O atom and one S atom are present, the two O atoms or one O atom and one S atom are not bonded to each other, and wherein the ring is saturated or optionally contains one carbon-carbon or carbon-nitrogen double bond;

wherein each 5-membered heteroaryl contains carbon atoms and from 1 to 4
20 heteroatoms independently selected from 1 O, 1 S, 1 N(H), 1 N(C₁-C₆ alkyl), and 4 N, and each 6-membered heteroaryl contains carbon atoms and 1 or 2 heteroatoms independently selected from N, N(H), and N(C₁-C₆ alkyl), and 5- and 6-membered heteroaryl are monocyclic rings;

wherein each heterobiaryl contains carbon atoms and from 1 to 4 heteroatoms
25 independently selected from 1 O, 1 S, 1 N(H), 1 N(C₁-C₆ alkyl), and 4 N, and where the 8-, 9-, and 10-membered heterobiaryl are 5,5-fused, 6,5-fused, and 6,6-fused bicyclic rings, respectively, and wherein at least 1 of the 2 fused rings of a bicyclic ring is aromatic, and wherein when the O and S atoms both are present, the O and S atoms are not bonded to each
30 other;

wherein with any (C₁-C₆ alkyl)₂-N group, the C₁-C₆ alkyl groups may be optionally taken together with the nitrogen atom to which they are attached to form a 5- or 6-membered heterocycloalkyl; and

wherein each group and each substituent recited above is independently selected.

2. The compound according to Claim 1, or a pharmaceutically acceptable salt thereof, wherein Y^5 , Y^6 , and Y^8 are each $C(R^5)$, wherein each R^5 is independently defined as above.

3. The compound according to Claim 1, or a pharmaceutically acceptable salt thereof, wherein one of Y^5 , Y^6 , and Y^8 is N and the other two of Y^5 , Y^6 , and Y^8 are each $C(R^5)$, wherein each R^5 is independently defined as above.

4. The compound according to Claim 1, or a pharmaceutically acceptable salt thereof, wherein Q is $N(R^6)C(O)$.

5. The compound according to Claim 1, or a pharmaceutically acceptable salt thereof, wherein Q is $C\equiv C$.

6. The compound according to Claim 1, or a pharmaceutically acceptable salt thereof, wherein Y^1 and Y^3 are each $C(O)$.

7. The compound according to Claim 1, or a pharmaceutically acceptable salt thereof, wherein one of Y^1 and Y^3 is CH_2 and the other of Y^1 and Y^3 is $C(O)$.

8. The compound according to any one of Claims 1 to 7, or a pharmaceutically acceptable salt thereof, wherein R^1 is independently selected from:

Phenyl-(C_1 - C_8 alkylene);

Substituted phenyl-(C_1 - C_8 alkylene);

5- or 6-membered heteroaryl-(C_1 - C_8 alkylene);

Substituted 5- or 6-membered heteroaryl-(C_1 - C_8 alkylene);

8- to 10-membered heterobiaryl-(C_1 - C_8 alkylene); and

Substituted 8- to 10-membered heterobiaryl-(C_1 - C_8 alkylene); and

R^2 is independently selected from:

Phenyl-(C_1 - C_8 alkylene)_m;

Substituted phenyl-(C₁-C₈ alkylenyl)_m;
5- or 6-membered heteroaryl-(C₁-C₈ alkylenyl)_m;
Substituted 5- or 6-membered heteroaryl-(C₁-C₈ alkylenyl)_m;
8- to 10-membered heterobiaryl-(C₁-C₈ alkylenyl)_m; and
5 Substituted 8- to 10-membered heterobiaryl-(C₁-C₈ alkylenyl)_m;

wherein m is an integer of 0 or 1; and

wherein each group and each substituent is independently selected.

9. The compound according to Claim 1, selected from:

- 10 4-[5-(4-Methoxy-benzylcarbamoyl)-1, 3-dioxo-1,3-dihydro-isoindol-2-ylmethyl]-benzoic acid;
- 2-(4-Methanesulfonyl-benzyl)-1,3-dioxo-2,3-dihydro-1H-isoindole-5-carboxylic acid (pyridin-4-ylmethyl)-amide;
- 15 2-(3,4-Difluoro-benzyl)-1,3-dioxo-2, 3-dihydro-1H-isoindole-5-carboxylic acid (6-methoxy-pyridin-3-ylmethyl)-amide;
- 2-(4-Cyano-benzyl)-1,3-dioxo-2,3-dihydro-1H-pyrrolo[3,4-c]pyridine-6-carboxylic acid (pyrimidin-5-ylmethyl)-amide;
- 6-(4-Chloro-benzyl)-5,7-dioxo-6,7-dihydro-5H-pyrrolo[3,4-b]pyridine-3-carboxylic acid (pyrimidin-5-ylmethyl)-amide;
- 20 6-[2-(4-Cyano-phenoxy)-ethyl]-5,7-dioxo-6,7-dihydro-5H-pyrrolo[3,4-b]pyridine-2-carboxylic acid (pyrimidin-5-ylmethyl)-amide;
- 2-(4-Chloro-benzyl)-3-oxo-2,3-dihydro-1H-isoindole-5-carboxylic acid (pyrimidin-5-ylmethyl)-amide;
- 25 2-(4-Methanesulfonyl-benzyl)-3-oxo-2,3-dihydro-1H-isoindole-5-carboxylic acid (1-methyl-1H-imidazol-2-ylmethyl)-amide;
- 2-(4-Chloro-3-fluoro-benzyl)-3-oxo-2,3-dihydro-1H-isoindole-5-carboxylic acid (pyridin-3-ylmethyl)-amide;
- 4-[5-(4-Methoxy-benzylcarbamoyl)-1-oxo-1,3-dihydro-isoindol-2-ylmethyl]-benzoic acid;
- 30 2-(4-Cyano-benzyl)-1-oxo-2,3-dihydro-1H-isoindole-5-carboxylic acid (pyrimidin-5-ylmethyl)-amide;
- 1-Oxo-2-pyridin-4-ylmethyl-2,3-dihydro-1H-isoindole-5-carboxylic acid (6-methoxy-pyridin-3-ylmethyl)-amide;

- 2-(4-Methanesulfinyl-benzyl)-2,3-dihydro-1H-isoindole-5-carboxylic acid
(pyrimidin-5-ylmethyl)-amide;
4-{5-[(Benzo[1,3]dioxol-5-ylmethyl)-carbamoyl]-1,3-dihydro-isoindol-2-
ylmethyl}-benzoic acid; and
5 2-Pyridin-4-ylmethyl-2,3-dihydro-1H-isoindole-5-carboxylic acid
(thiophen-2-ylmethyl)-amide;
or a pharmaceutically acceptable salt thereof.
10. The compound according to Claim 1, selected from:
- 10 4-[1,3-Dioxo-5-(3-phenyl-prop-1-ynyl)-1,3-dihydro-isoindol-2-ylmethyl]-
benzoic acid;
2-(4-Methanesulfinyl-benzyl)-5-(3-pyridin-4-yl-prop-1-ynyl)-isoindole-
1,3-dione;
2-(3,4-Dichloro-benzyl)-5-(3-imidazol-1-yl-prop-1-ynyl)-isoindole-1,3-
15 dione;
6-(3-Methyl-3-phenyl-but-1-ynyl)-2-(4-methylsulfanyl-benzyl)-
pyrrolo[3,4-c]pyridine-1,3-dione;
3-(3,3-Difluoro-3-pentafluorophenyl-prop-1-ynyl)-6-(4-methanesulfonyl-
benzyl)-pyrrolo[3,4-b]pyridine-5,7-dione;
20 2-[3,3-Difluoro-3-(4-fluoro-phenyl)-prop-1-ynyl]-6-(4-methanesulfinyl-
benzyl)-pyrrolo[3,4-b]pyridine-5,7-dione;
2-(4-Chloro-benzyl)-6-[3-(4-methoxy-phenyl)-prop-1-ynyl]-2,3-dihydro-
isoindol-1-one;
4-{6-[3-(4-Chloro-phenyl)-prop-1-ynyl]-1-oxo-1,3-dihydro-isoindol-2-
25 ylmethyl}-benzenesulfonamide;
2-(4-Chloro-3-fluoro-benzyl)-6-(3-thiazol-3-yl-prop-1-ynyl)-2,3-dihydro-
isoindol-1-one;
5-[3-(4-Fluoro-phenyl)-prop-1-ynyl]-2-pyridin-4-ylmethyl-2,3-dihydro-
isoindol-1-one;
30 4-[5-(3-Naphthalen-2-yl-prop-1-ynyl)-1-oxo-1,3-dihydro-isoindol-2-
ylmethyl]-benzoic acid;
4-{5-[4-(1H-Imidazol-4-yl)-but-1-ynyl]-1-oxo-1,3-dihydro-isoindol-2-
ylmethyl}-N-methyl-benzenesulfonamide; and

4-[5-(3,3-Difluoro-3-phenyl-prop-1-ynyl)-1,3-dihydro-isoindol-2-ylmethyl]-benzoic acid;
or a pharmaceutically acceptable salt thereof.

- 5 11. A pharmaceutical composition, comprising a compound according to Claim 1, or a pharmaceutically acceptable salt thereof, admixed with a pharmaceutically acceptable carrier, excipient, or diluent.
- 10 12. The pharmaceutical composition according to Claim 11, comprising a compound according to Claim 9 or 10, or a pharmaceutically acceptable salt thereof, admixed with a pharmaceutically acceptable carrier, excipient, or diluent.
- 15 13. A method for treating osteoarthritis or rheumatoid arthritis, comprising administering to a patient suffering from osteoarthritis or rheumatoid arthritis a nontoxic effective amount of a compound according to Claim 1, or a pharmaceutically acceptable salt thereof.
- 20 14. The method according to Claim 13, wherein the compound administered is a compound according to Claim 9 or 10, or a pharmaceutically acceptable salt thereof.